

Abstract

The present invention is based on the discovery that proteins produced in insect cell cultures are glycosylated in a unique manner that causes them to be selectively imported by cells that express mannose receptors on their membranes, particularly macrophages. Proteins that are selectively imported into cells containing mannose receptors are provided, as well as pharmaceutical compositions containing such proteins and methods for producing such proteins. Application of the present invention to produce proteins useful for treating lysosomal storage disorders is also disclosed. Engineering of cells to express mannose receptors so that they will selectively import proteins produced in insect cells is also taught, as well as a protein targeting system using such cells and proteins. Finally, an improved elution buffer for the purification of proteins produced in insect cells from a Concanavalin A column is provided.

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